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PRIVATE OWNERSHIP LAND AND LIVESTOCK

FROM

THE WESTERN RANGE—A GREAT
BUT NEGLECTED NATURAL RESOURCE

FOREST SERVICE

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PRIVATE OWNERSHIP—LAND AND LIVESTOCK

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PRESENT CONDITION OF PRIVATE LANDS

The continental United States contains 1,903,216,640 acres of land, of which 975 million acres is in the western range region. Approximately 721 million acres of the latter area consists of usable and available range land; 376 million acres is held in private ownership. These lands passed from public to private ownership through a series of land-disposal laws, which imposed no restriction on their use, either direct or implied. In the 50 to 80 years of occupancy, and during the period of transfer to private ownership, both the character of the original cover and the productive capacity of the land have been greatly changed.

The luxuriant forage supply of the virgin range is now depleted until, on the average, these 376 million acres of private land produce only 49 percent as much feed as originally. Approximately 88 percent have been depleted in excess of 25 percent. Excessive stocking prevails on most of the area. Watershed values are not protected and inadequate water supply, abnormal erosion, and floods constitute a menace to farms and communities. Much of the area is suffering from economic instability. These adverse social and economic conditions require correction. The solution of the problem rests mutually with the private owner and governmental agencies.

WHAT PRIVATE AND PUBLIC AGENCIES CAN DO TO STABILIZE PRIVATE OWNERSHIP

The stabilization of private range-land enterprises will require the united effort of landowners and of various public agencies. Even with the transfer of 125 million acres of range and crop lands to public ownership, as previously recommended, the total range land in private ownership will still remain high. To insure the sort of private ownership which will meet its responsibilities, many of the existing disadvantages must be removed through a consciously planned program. Such a program involves: (1) Recognition of the stewardship of land; (2) solution of the submarginal land problem; (3) development of socially sound economic range units or their conversion into profitable ones; (4) reduction of inflationary land values; (5) practice of range management, animal husbandry, and game management; (6) control of production; (7) overcoming marketing handicaps; (8) improved credit facilities; (9) more equitable taxation; and (10) research and extension.

STEWARDSHIP OF LAND

Since the establishment of the first colonies, America has pioneered through a vast empire and conquered a wilderness in the process. Traditionally, the desire to open up virgin territory, creating larger economic opportunity and independence, has been a prime motive of agricultural development in its migration from east to west. History of this country reflects the eternal quest for greater opportunity and more fertile fields. Essentially, Americans have responded to this urge and have never been rooted fast in any one place. Under these conditions it is not surprising that the concept of stewardship of the land has been largely undeveloped.

Another reason why we, as a nation, have failed to subscribe to any theory of stewardship of the land has been the firm belief that natural resources were unlimited, and that one could move from place to place at will and untrammelled. The tradition that the owner of the land has unrestricted and inalienable rights has been woven into our legal concept of land ownership. On the other hand, the desire to hold and to build up landed property in one family from generation to generation is lacking. Land laws have been so administered as to pass much land from public ownership that private ownership cannot carry. Rugged individualism of the pioneer landholder has been in itself another contributory factor.

The point of view has prevailed that land is a temporary source of income and that ranch and range may be sold to the highest bidder if the price is right. The exodus of Iowa farmers to southern California, when land values in Iowa reached inflationary or "boom" figures, is an excellent illustration of how weakly rooted American farmers are in any region or on any piece of land.

Before much progress can be made in restoring depleted ranges and in maintaining their productivity, the stewardship concept of land must become more firmly woven into our national philosophy. Many trends in that direction are evident. Only when it is generally recognized that the natural resources are exhaustible, that soils can be dissipated, and that no other great tracts of fertile lands are open to conquest, can appreciation be capitalized that private ownership carries with it implied responsibility in land ownership. This trend is reflected in the movement that recognizes community interests in land which here and there has expressed itself in local laws regulating the use of lands. The latest outstanding expression of the stewardship concept is the development of the land-planning machinery in many States. It is predicated on the basic premise that mutuality of public and private interest exists, demanding self-imposed restrictions to preserve and develop the resources of the land.

The private owner must accept this challenge and cooperate in local and regional organizations which seek to develop sound land policies and the machinery to effectuate them. Without the hearty support of the body politic, no land planning can be imposed by governmental agencies. Machinery, which the private owner can skillfully use in this movement, already exists in such organizations as the Farm Bureau, the Grange, cooperatives, and similar groups.

The public must recognize that acceptance of stewardship of agricultural and range lands will develop but slowly and weakly until agriculture is given a fair opportunity to market its products at levels above the cost of production. Onerous taxes and burdensome land-carrying charges discourage the ownership of farm or range lands. The public must also provide the legal machinery and instrumentalities for collective action in zoning and land planning which will designate areas that can best be held in private ownership, lands the ownership of which is now doubtful, and lands that must be retained in permanent public ownership.

SUBMARGINAL LANDS

A large area of range lands is so handicapped by low productive value or other disadvantages as to render these tracts submarginal for permanent private ownership, although they may possess attractive potentialities for range use under public ownership. Lands of such low quality, that their income is inadequate to cover the costs of private ownership, must ultimately be classed as submarginal. However, lands submarginal in character may prove temporarily profitable during very favorable price cycles, only to revert to their true status with the return of average prices, or when other unfavorable conditions develop.

Private owners have frequently failed to recognize the submarginal character of their holdings and have hung on doggedly against odds; eventually, however, they invariably succumb. The most difficult situation that arises is where the livestock producer attempts to maintain lands in private ownership whose carrying charges become so burdensome, with returns so uncertain, that his available capital is practically exhausted by indebtedness.

The sterling ability of the pioneer to struggle against difficulties is futile when an attempt is made to stem the overwhelming odds encountered on such lands. Difficult as it may be, the individual personally must recognize the limitations in the private ownership of low-productivity land.

Definite responsibilities accrue to the public regarding submarginal lands, especially if their condition adversely affects watershed protection, wildlife, recreation, or other public values. In many instances the toll of severe depletion has metamorphosed many tracts from desirable range lands into financial stalemates. Vast areas, depleted in excess of 50 percent and now submarginal, require rehabilitation. In many cases, the private owner is unable to bear the cost of such improvement. If the public has to pay the rehabilitation costs, it should undoubtedly reap such benefits as may obtain.

The public is not conferring a favor on the stockman, who is trying to operate on privately owned low-value land, foreordained to failure, by extending to him special financial assistance and other subsidies, except as a temporary expedient. It would be preferable for the public to acquire the land and permit its use under such supervised management as will restore values and sustain production. Stockmen, who own productive ranch property which can be used to advantage with the publicly acquired range land, should be accorded opportunity to use such acquired land under a preferential system similar to that now applied on the national forests. Accordingly, submarginal lands should be passed to public ownership as

rapidly as possible. Every possible means should be utilized to prevent submarginal lands now in public ownership from falling into private hands and further complicating an already unsound situation.

These lands cannot be taken over immediately. It may require up to 50 years for the entire 125 million acres of submarginal range and dry-farm land of the West to be acquired. It would be regrettable if a conscious program could not be undertaken promptly and carried forward aggressively, because of the waste of resources, human effort, relief costs, and other features that prevail under present conditions. It is a big problem, the answer to which is not yet clear. Three possibilities present themselves: (1) The tax delinquency route; (2) gifts; and (3) outright purchase or exchange.

An unknown area is already tax delinquent and can be immediately taken over by counties and States. Several million acres of such submarginal land have already reverted in this manner. More will become tax delinquent as owners recognize its true submarginal character, or as their financial resources become exhausted.

Gifts to public agencies will undoubtedly come primarily from corporations and other large land owners. A considerable acreage is held by corporations which are unable to realize a profit or in some instances even taxes from the lands. In certain localities, such as the red desert in Wyoming, alternate sections of low-value lands within a railroad land grant are leased or owned, making it possible to utilize the intermingled public land. When fees are charged for grazing the public lands the incentive for paying relatively high lease costs will be removed, and the true value of these lands will be disclosed. Undoubtedly it would be to the advantage of owners and the public if most of these low-value lands could be given outright to public agencies qualified to administer them in the public interest. In most instances, however, the grant of lands to public agencies will probably be conditional, permitting the utilization of the resources without cost for a limited period.

Despite these means of acquisition, the bulk of the lands which should be acquired will have to be through purchase or exchange. Where relatively high-value range lands are available as scattered public holdings there would be certain advantages accruing to the public from the exchange of these for a larger acreage of privately owned low-value lands. Here again only a rather limited acreage can be obtained in this manner. A large part of the submarginal lands that should be purchased will not be recognized as such by the present owners. The many 640-acre homesteads, owned but abandoned and held in the hope that a sale can be consummated, clearly indicate the lack of appreciation of their submarginal character. Where the owner is willing to use his own capital to finance retention of such lands the public need not be concerned in immediate purchase so long as the public interest is not endangered by misuse.

Pending purchase of lands, the private owner might waive management to the Government and in return might be permitted to stock the range to grazing capacity of the land or be given such fees as are collected, less administrative costs. This privilege should be exercised only as a temporary expedient.

Some of the better lands will continue in private ownership until the public needs for the land become more acute. This will hold true especially of lands that may later be needed for enlarged wildlife and recreational requirements of the future. The public could well afford to aid in the rehabilitation of such lands pending the time when it will assume ownership.

All of these various contingencies stress the need for adequate classification of range lands to determine which areas should revert to public ownership and which parts or classes should be given priority in purchase in order to aid in the solution of the sub-marginal land problem.

DEVELOPMENT OF SOUND ECONOMIC UNITS

On some range lands which have sufficient productivity to justify private ownership, oversettlement has occurred on such a scale that many of the units are so small that production returns are inadequate even for satisfactory living standards. This is a real problem in many parts of the West, where communities have been promoted, which, however, lack adequate opportunities for local residents to gain satisfactory livelihood from the combination of crop and range agriculture. Range lands are limited and crop lands are also either limited or are otherwise incapable of producing the forage or cash crops necessary to make all the ventures economically sound.

In contrast to these small units, some of the unusually large outfits have failed to produce satisfactory net returns. Other large outfits make inefficient use of irrigable lands and induce other undesirable social aspects.

When all sources of income including those from livestock, crops, and outside labor are sufficient to maintain a family in ordinary times, at a reasonable standard of living, the farm or ranch may be considered to constitute a family-sized economic unit. This is a highly elusive entity, because it varies widely with the combinations of livestock and other enterprises commonly found in a locality as well as with the standard of living recognized as satisfactory in a given community.

Granting a more or less definite standard of living, a ranch which may yield good returns at one phase of the price cycle frequently fails to pay when prices slump. Probably the minimum unit that can be called satisfactory is one which will support a family in reasonable circumstances during normal periods and which will sustain itself without public relief during economic depressions.

Although many variations in the size and character of ranches that are economically or socially unsound occur and an integration of one class into another is common, three rather typical situations appear throughout the West: (1) The undersized cash crop-livestock unit; (2) the small livestock unit; and (3) the unusually large outfit primarily developed for the production of livestock. If adequate range were available the solution would not be so difficult. Practically all range areas are now congested; the resultant forage depletion has accentuated the situation and increased the difficulties of correction.

UNDERSIZED CASH CROP-LIVESTOCK UNITS

Diversification, such as results from the combination of cash crops and livestock production, facilitates economic soundness. Where soils are productive, climate favorable, and markets reasonably accessible, particularly if irrigated land is included, diversified ranches are economically sound. A family-sized unit, both balanced and diversified, is reasonably secure if the range livestock enterprise is of fair size and an income also results from cash crops. The diversified crop-livestock unit has perhaps the best chance of any in the West of becoming both economic and permanent. However, many ranches which now derive their income from the combination of cash crops and livestock operations are unsound, either because of inherent small size or lack of proper balance in the operation.

Some of these ranches are uneconomic because of their extremely small size, having only a limited acreage of cropland and a few head of cattle, sheep, or goats. The herd or flock is too small to furnish a suitable income. It is either impossible to graze additional livestock on the range or the cropland is so restricted that sufficient supplementary feed cannot be provided. In most instances the amount of cropland is the limiting factor.

Where such small farm-livestock units, which are now unprofitable, are located close to large centers of population and the cropland is suitable, a shift to production of truck or other specialized crops might make them economic. Under such conditions the principal income, including much of the food for the family, will come from the farm, range being used only for grazing milk cows or a few other domestic animals, yielding a little ready cash. Furthermore, where small units are so located that the owner can obtain a part of his income from outside labor, many otherwise unsound establishments can undoubtedly be maintained. If specialty crops are grown or other labor has to be performed, a little care can be given livestock run on the range. Livestock run at will, however, seldom yield a profit and ordinarily damage public interests. Some cooperative plan for the effective management of the livestock while the owner is busy at other work or is engaged in crop production on his farm is essential. Although cooperative management succeeds well in Utah, it has not worked out as satisfactorily in other localities.

Lack of social and economic soundness among other crop-livestock ranches ordinarily emanates from such features as the attempt to graze more livestock than the range will support, necessitating forage-crop production on land that could better be used for more valuable crops; inadequate provision for management of the livestock grazing on the range, thereby limiting production returns; and, in some instances, from a total lack of livestock or an inadequate number of range animals to properly balance feed production from harvested crops. In the majority of these cases the solution is obvious.

In the case of units which need more range livestock in order to form properly balanced operations, the purchase of additional livestock already on the range may be necessary. Nothing would be gained by further congesting overstocked ranges with shipped-in livestock.

In some instances, public range may be made available to supplement crop production on these diversified ranches by reductions in the numbers of livestock of large outfits already grazing on the public lands. Considering that practically all public ranges are now overstocked and depleted and that a high percentage of such reductions as can effectively be made within the next few years will undoubtedly be needed to give the range forage plants the opportunity to develop vigorous growth, the possibilities of improving the situation on these diversified units in any such manner are exceedingly slim unless they have livestock already grazing on the public range. In some localities, however, immediate assistance can be given.

Where such adjustments are impossible, the ultimate public good will be best served by the gradual movement of families from such unprofitable units to suitable irrigation projects, under some similar program to that now being conducted in various parts of the West by the Resettlement Administration.

SMALL LIVESTOCK UNITS

In high altitudes, on alkaline or other unproductive soils, on slopes too steep for cultivation, and far from railroads, ranches have small chance for cash-crop production. Under such conditions crop land can best be used for forage-crop production. Livestock graze on private or public ranges part of the year and are fed hay and other home-grown ranch roughage during winter and other critical periods. Many such ranches have an insufficient number of livestock to furnish a satisfactory income, although the available range and other forage resources are used to the maximum; this results in a serious social and economic problem. In some localities, one possibility for improving conditions is to distribute the grazing privileges of the larger outfits on public lands among the smaller. If this would expand the more suitable of the smaller outfits sufficiently to assure a reasonable standard of living for most of them, such a plan, where possible, would undoubtedly be desirable. However, in many instances, the number of small unprofitable units is so great that to distribute the grazing more or less evenly among them would simply reduce all to an unsound basis. Therefore, adjustments in public-land grazing privileges should be made, not with the idea of endeavoring to sustain all units, but rather to facilitate the maintenance of the number that are economically justified in each locality.

Under such conditions some ranches have expanded into units of economic size through consolidations or other means. This is especially true in the foothill region of central California where many of the original 160-acre homesteads are now combined into units of from 2,000 to 4,000 acres.

Undoubtedly, the tendency will be for the better-managed outfits to absorb those operated with less skill, and thereby gradually result in fewer and larger units, better adapted to furnish reasonable living standards. The inescapable fact must be recognized that there is insufficient range land adequately to accommodate the demands of all the existing livestock producers and their families, even

if the large ranch units were disassembled and redistributed. The general trend, in which the smallest outfits are finally absorbed by the medium-sized units, will partially ameliorate conditions. When absorption comes as a result of bankruptcy and foreclosure, considerable suffering, on the part of those who are closed out, is entailed. The planned removal of part of the families on small units to irrigated areas or to other subsistence projects should greatly decrease the losses and mitigate the pangs of pauperism. A responsibility rests on the private owner of such uneconomic units to accept these trends in adjustment.

As is the case in the small crop-livestock units, where supplemental work for owners of small livestock ranches can be made available on public land or otherwise, such supplemental work should facilitate the maintenance of many more successful homes than would otherwise be possible. A great deal of the work on fire suppression, improvement, and development of the national forests is handled by owners of this class of ranch. This supplemental income favors the retention of these otherwise unprofitable units and simultaneously provides a local, immediately available, labor supply. An extensive permanent program of conservation and development on range and forest lands is justified for this express social purpose. Such a program can take the form of tree planting, timber-stand improvement, artificial reseeding, watershed improvement, and the construction and maintenance of essential physical developments, including fences, water developments, and the like.

UNUSUALLY LARGE LIVESTOCK UNITS

Another situation exists, as in parts of Nevada for example, and, to a certain extent, in other sections of the West, where large operators have acquired irrigable lands along streams, thus obtaining a practical monopoly of large areas of public range lands. These large outfits are often economically sound and the personnel employed in their operation enjoy reasonably satisfactory living conditions. Where such large outfits make inefficient use of irrigable lands and induce undesirable social aspects, such as shifting labor and men without families, homes, or moral anchorage (6), the public would benefit by such adjustments as would improve conditions. Although the process of such attainment is yet indefinite, land-planning agencies might appropriately consider ways and means of bringing about a gradual adjustment, which will enable the range and crop lands in such situations to support a larger number of successful home units.

Economic stress of recent years has caused the breaking down of a number of the especially large outfits of the West into smaller units, each of which can now be accorded the individual managerial attention essential for success. This is undoubtedly a desirable trend. A gradual reduction in the numbers of livestock grazed by large outfits on public lands to facilitate the development of more successful home units will also redound to the public interest.

No attempt has been made to present all situations which tend to develop or perpetuate uneconomic units. Ranches differ radically in nature and extent, in area of land used, in size of herd, and in

total investment. The ability of these various-sized units to maintain satisfactory social and economic conditions and to enable the private owner to assume the responsibilities which the public has a right to expect from private ownership, varies greatly between regions and even within the same region. The situations must be considered from the local, regional, and national aspects and programs developed to meet the specific conditions.

Economic distress and maladjustments, because of the prevalence of uneconomic units, vary from region to region, but the problem is common throughout the western range States. Readjustments cannot be accomplished abruptly. Aid must be provided in the form of public work as a temporary or permanent expedient, to absorb the shocks of necessary economic changes.

In the western range States where public range is available, either in national forests or grazing districts, the Government can facilitate the correction of many uneconomic units: (1) By preference in the use of public grazing lands, such as is given the resident home builder on national forests, and (2) by preference in the opportunity to obtain work on the public property. Governmental agencies can also provide reasonable credit facilities through which capable small livestock operators can secure funds to buy out other small-unit operators, thus expediting the build-up of more economic units.

Considerable increase in grazing capacity may be anticipated on ranges through better management. This would improve the situation because: (1) A smaller area of range lands will then be needed to support a given number of livestock; (2) these livestock will produce more young and make better gains and therefore yield larger returns; and (3) the greater feed assurance from the improved ranges will facilitate stabilization by reducing fluctuations. Thus, available ranges will serve the ranches which remain more effectively.

The economic family unit of the future will probably be a combination crop-livestock enterprise, in which the use of public land—if any—by private owners of livestock may be the integrating balance. Small outfits will undoubtedly be able to reduce costs through cooperative effort by using the public range in common as already occurs on many existing community ranges in the national forests. The ideal combination of low-value lands in public ownership and high-quality lands in private ownership should be very effective in stabilizing livestock production and crop-agriculture. It is unlikely that any single answer will suffice for all regions and conditions, and much more factual information must be available before a definite solution can be offered for a particular locality.

INFLATIONARY LAND VALUES

Inflationary land values cannot be continued indefinitely. The sooner debtors and creditors alike accept deflation in speculative land values and write off fictitious "paper" values, the sooner will livestock producers be able to meet the land-carrying charges of private ownership. Stable private ownership is easily upset by too easy credit and boom psychology; difficult though it be, bankers and land owners must eternally be on guard to thwart it.

Public agencies, through credit facilities are now in a better position than ever before to direct and control the stabilization of land

values. The Federal Farm Credit Administration, through its many subdivisions, can bring about loan policies which will prevent foreclosures of well-managed outfits, heavily mortgaged for depression periods, but fundamentally sound under normal conditions. State and Federal research agencies have an inherent responsibility to formulate specifications by which land values may be related to actual earning capacity and which should markedly influence land transactions and the viewpoints of private credit agencies, the buyer, and the seller of lands.

RANGE MANAGEMENT, ANIMAL HUSBANDRY, AND GAME MANAGEMENT

A large number of stockmen have, for one reason or another, failed to practice good range management; as a result, the forage shows an average depletion of about 51 percent. Conditions have led stockmen to overstock during boom periods and to hold their livestock during periods of deflation. Frequently, only partial use has been made of good animal-husbandry practices to reduce costs and to improve livestock quality. Opportunities for game management have seldom been considered.

WHAT THE PRIVATE OWNER CAN DO

The insidious process of range deterioration has "crept up" on the range owner. No pronounced improvements can be effected until the range-land owner learns to recognize some of the earmarks of this process on his range and the resultant unfavorable conditions produced. Unless the owner understands that the key forage plants are disappearing, that the rich topsoil is being washed away, and that gullies are devastating valuable lands, no opportunity is afforded for corrective measures, even though he has felt the severe sting of markedly reduced income. The livestock producer must also recognize that the range can be improved and ultimately built up to some approximation of its original forage capacity only through proper range management. The most effective way to assure improvement is to determine the objectives toward which management should be pointed, the necessary action to carry out these objectives, and ways and means to secure accomplishment. In short, it means the development and application of range-management plans.

One obvious reform which the private owner should institute immediately is to correct excessive stocking where it prevails on his lands, either by reductions in numbers grazed or by such seasonal or other changes as will accomplish the purpose. In most cases, such action would produce meat and other animal products at greater profit, partly through better calf and lamb crops and reduction of losses, partly by more efficient animal growth, and partly by curtailment of supplemental feed requirements, already demonstrated as costing much more than range forage. Failure to correct overstocking will cause the undermining and ultimate collapse of the range-forage resource upon which the perpetuity of the operation depends.

Unquestionably, the private owner can improve his status by better breeding, feeding, and other animal-husbandry practices. Many of the more progressive stockmen use good quality bulls and rams, limit their breeding seasons, and provide adequate supplemental

feeds and necessary concentrates to offset low-quality range feed and present lack of necessary mineral nutrients on the range. However, a great many stockmen still use sires of medium quality and on some ranges scrub bulls even now prevail. In the Southwest, bulls are often permitted to run with cows yearlong which impairs their breeding ability and calves are not uniformly developed at time for sale. Aged cows and ewes are not culled as promptly as advisable. Seldom is adequate feed available to satisfy demands during unusually severe winters and periodic droughts.

Adequate use of supplements is, of course, essential. Supplemental feeding, however, is more costly than range forage. It is important, therefore, to coordinate the use of range and other feeds so as to reduce the winter maintenance costs as much as practicable. The carry-over of a reserve of hay or other roughage is likewise necessary in Western ranch operations because of drastic climatic fluctuations with reduced range feed in dry years and deep snows during severe winters. It is at such times that feed prices become exorbitant, and unless a reserve supply is available to meet such contingencies, the profits for several years may be wiped out in a single season.

The solution of these animal-husbandry problems appears more or less obvious, still, they persist. Adoption of better practices would greatly aid in increasing calf and lamb crops and improving quality and salability of the animals. This in turn would make it possible for owners to obtain equivalent or even greater income with fewer livestock and thus would assure more conservative grazing which would reduce the need for heavy supplemental feeding every year.

Included in the range area is over 25 million acres of privately owned land capable of producing commercial timber crops. Under proper management livestock can ordinarily be grazed without jeopardizing the use of the land for timber growing. Timber growing on this land, in many instances, will be more profitable but grazing leases can be made to help carry current costs of protection, taxes, etc. On the 24 million additional acres of poorer forest land suitable for grazing which is in private ownership there may be important cordwood, watershed, and other values. In most instances, these will be safeguarded if the lands are managed to restore depleted grazing values and to sustain forage production of improved ranges.

The full opportunities for cooperative effort have not been exhausted in fostering better range management and range improvements as well as in the reduction of costs in handling range livestock. Livestock associations can render a great service by sponsoring such cooperative effort. Many examples of the beneficial results from cooperative handling on the national forests might be cited, such as in Utah, where it has attained efficient development. The degree of success attained, as well as the possibilities in the operation of the Montana laws providing for cooperative grazing districts, merit detailed and careful study.

Improvement of range conditions and better range management hinge, in some instances, on cash outlays for revegetation and for facilities such as water development and fences. It is estimated that on the 376 million acres of privately owned lands the following ex-

penditures will be required: Water development, 3 million dollars; range fences, 6.2 million; revegetation, 48 million; and rodent control, 6 million. A considerable part of the cost of these improvements will be carried by the personal time of the owner or by part time of labor employed anyway. Some assistance of governmental agencies on these improvements is also justified.

WHAT THE PUBLIC CAN DO

The United States Department of Agriculture and the State agricultural colleges have accorded far less attention to range management than to crop-agriculture in the western range States. However, during the last 8 to 10 years, some systematized effort along that line has been inaugurated. The complexity of the problems and the large public values involved warrant a more intensified attack, both in research and extension.

If the capital investments mentioned above are made and a good forage cover established, important public values and benefits in favorable watershed conditions, and in establishment of desirable habitat for game will simultaneously be secured. Hence, public assistance may well be warranted. Possibilities include a public subsidy for seed or planting stock for revegetation and erosion control; investigations of management and revegetation; explorations of water sources; and extension of credit on a long-time amortization basis. With the gradual taking over of the 125 million acres or so of range and submarginal cultivated areas recommended in a previous section, one of the first efforts after acquirement will doubtless be the development of such improvements as are necessary to assure restoration of forage values, primarily by the public agencies.

The recent decision of the Supreme Court held it unconstitutional for the Federal Government to regulate agricultural production on private land through the Agricultural Adjustment Administration, in accordance with the provisions of a cooperative agreement between the Government and the owner. This ruling may handicap the highly imperative program in range rehabilitation on private lands, as one of its primary requirements should be that the landowner practice good range management in order to qualify for Federal assistance and to assure solvency of the public investment. States should share in this responsibility, although most States in the range region have low public incomes.

Some areas in private ownership are so inferior in natural productivity and have been so badly misused that the costs of restoration can never be justified in private ownership. These lands, in many instances, must be restored to good condition in order to conserve public values; accordingly, the safest policy seemingly requires acquisition, restoration, and administration by the public.

PUBLIC COMPENSATION FOR GAME MANAGEMENT

Private ranges support much game and in many places could advantageously maintain even more wildlife. Adequate provision for these game animals sometimes requires sacrifice of part of the forage which could be used by domestic livestock. Where game is hunted by publicly licensed nimrods, the States and sportsmen's associa-

tions may well consider compensation to landowners for such services. This can be met, for example, by providing fees to the landowner, as is done in Nebraska, where the hunter buys scrip, which he gives to the owner of the land where he kills game. Several other States also provide some form of compensation for owners. Increasing game for its aesthetic values may properly be considered as a public responsibility for compensation to private owners. In consideration of such public aid, the States can require affirmative plans of game conservation.

CONTROL OF PRODUCTION

Manufacturers and other organized producers of consumers' goods can limit their output reasonably well to suit the demand; livestock producers, lacking adequate organizations among the many independent units, have not, prior to the Agricultural Adjustment Administration in 1933, maintained production in relationship to consumption requirements. However, even under this administration no attempt has been made to control the production of range cattle or sheep. It is wholly impossible for stockmen to cease operations even temporarily, as animals have to be fed and cannot abruptly be snuffed out during a depression. In fact, the depression may, and usually does, result in holding unsalable or low-value animals on range lands; this, temporarily, may even increase production.

Radical changes in markets have taken place. Even before the World War the export demands steadily declined. The decrease in American foreign trade in range products is shown by comparison of averages for the 4-year period ending June 30, 1926, with the 4-year period terminating June 30, 1935. The excess of exports over imports in "meat and meat products" dropped from 269 million dollars in the first period to 49 million in the second, or to 18 percent. In "miscellaneous animal products" the decrease in net imports was from 29 to 7 million dollars, or to 26 percent. "Wool and mohair" shows net imports in both periods, but decreased from 122 to 15 million dollars, or to 12 percent; "hides and skins" also showed a decrease in net imports from 93 to 33 million dollars, or to 36 percent.

A continuously expanding home market, characteristic of the country before the disappearance of the western frontier, no longer exists. Immigration has been materially restricted; greatly reduced exports, following the World War, have changed our former demands. Competition from other livestock-producing countries further complicates the problem. These factors indicate the desirability for control of unmanaged surpluses, gaged to meet home and export demands. Irrespective of what form production control takes, cooperative effort of the producer will be needed for intelligent and effective administration of the machinery used, an activity in which the livestock association can aid measurably.

What the public may consummate in production control through voluntary cooperation is still problematical. Various factors and unmanaged surpluses emphasize that control of production is a problem which requires serious consideration by both the private owner and the public. The name for production control may

change; legal necessity has changed its form and may do so again; but the loss of most of the export market has made permanent the essential need for avoiding unmanageable surpluses.

MARKETS

Western livestock producers are subject to marketing handicaps due to their remoteness from markets, high transportation rates, costly feed and handling expenses in transit, selling commissions, market differentials, impersonal marketing services, and the common market gluts. Cooperative marketing is an outgrowth of widespread dissatisfaction and exemplifies the determined effort of the livestock and wool producers of the West to solve their marketing troubles.

The stockmen may still better fortify their position by further cooperative expansion through marketing services, such as those furnished by national, regional, and local marketing associations in connection with grading, selling, shipping, feed and handling costs, legal services, and credits. Better breeding and grade standardization of livestock, wool, and mohair will also aid. This strengthening of confidence between the producer and purchaser by uniform grading methods will probably result in reduced marketing costs and improved prices. Much may be accomplished by encouraging and developing the direct-contact selling method that is gaining favor in the West, through the medium of neighborhood pools and auctions which sell direct to buyers who accept delivery on the farm, or ranch, or at the local railhead.

A full recognition of the necessity for prompt movement off the range of natural increase and other livestock that has attained market maturity should prove helpful. The carry-over of animals in market finish has generally proved unprofitable to producers and injurious to overcrowded ranges. It also contributes to market instability, increased feeding costs, reduced calf crops, and other range, market, and production evils.

Public aid in helping stockmen solve their market problems has been facilitated by definite committal of the Federal Government to the principles of cooperative marketing, through the development of public highways and agricultural extension. Additional public assistance is needed for studying freight rates, market differentials, production and market distribution, price fluctuations, and the application of direct-extension methods to keep stockmen abreast of the times in livestock improvement and in the quantitative and qualitative demands of the trade.

CREDITS

Weaknesses in present commercial credit methods and banking practices work hardships on producers. These include the negotiation of short-time loans where the nature of the operation precludes consummation of the project before loan maturity, and high interest rates with the virtual compounding of interest at frequent maturity intervals. Loan agencies have also often been liberal in credit during boom periods and extremely tight during depressions. Such loan practices have ordinarily resulted in accentuating losses

by the depreciation of both real-estate and chattel security. Another difficulty has obtained from the overvaluation of livestock in appraising the proper relationship of owned range or range privileges to chattel security as a satisfactory basis for credit. Maintenance of the range resource merits greater recognition as being of fundamental importance in credit stabilization and the determination of favorable loan-amortization rates. The evil of placing excessive-credit reliance on livestock security without proper consideration of the range resource has frequently reacted unfavorably to loan agencies, to stockmen, and to the range.

The loan-agency requirement that the range land upon which the chattel security is based be a fee-owned, self-sufficient unit, or that leases, permits, or privileges for grazing on other private or public lands be made a part of the collateral and that the lessors or permitors be bound to recognize transfer and assignments in case of foreclosure or other subsequent transactions is a credit situation which may adversely affect range maintenance. These privileges are thus virtually noncancelable and not subject to material reductions of grazing animals during the life of the loan. Consent to such pledging of Federal-grazing privileges on public lands, as security for private loans, cannot be effectively harmonized with range restoration and the requirements of other public resources, interests, and demands.

Under the Federal Farm Credit Acts, however, more favorable and satisfactory public credit facilities are rapidly being developed. These include discouragement of overexpansion, longer durations for loans, lower interest rates, adequate provision of range and other forage, careful inventory of forage as well as livestock and other assets, and recognition of the moral risk of the borrower.

The private land owner must accept his obligation to develop, maintain, and perpetuate the range resource as the collateral for dependable long-term credit. The wider use of cooperative associations, which guarantee the integrity of credits of their members, should help in lowering interest rates and strengthening individual credit ratings.

Public studies of long-time livestock values and returns are important in establishing interest rates, loan terms, and equitable long-term-loan retirement rates. A further investigation of the needs and methods of using long-term Federal credit might be of vital importance in providing working capital and in freeing operators from forced liquidations.

TAXATION

At present, in practically all of the western range States, it is impossible to ascertain the assessed values of range lands from tax records as they are usually involved in a classification with other property. Studies of the assessment of forest and other lands indicate an almost universal tendency to assess lands of low productivity at a relatively higher ratio to actual value than obtains with more productive land. Because of this tendency, low-value range lands are probably at a disadvantage (47).

The private owner, through his various associations, may appropriately exert his influence in favor of an adequate survey of prop-

erty-tax system in the range region. Any such survey should stress determination of existent assessment practices and basic data, which would be invaluable as a foundation for a more equitable assessment. Possibly the experiences of Wisconsin, where State supervision of assessment and equalization between taxing districts is more successfully conducted than in most States, afford a satisfactory solution (47).

In this study of taxation, range lands should be classified separately from farm lands and other properties, and the size of the tax burden in proportion to the values and the incomes from the various classes of property should be determined. This would indicate whether the range lands are actually taxed higher in relation to productivity than other classes of property. Since a large part of the property tax goes to support local government, it may also be desirable to include some analysis of the cost and organization of local government in districts where range land predominates in order to determine whether such cost may be reduced, or at least of decreasing the local expense burden, without curtailing essential functions. A reduction in the number of local governmental units and other measures which have been suggested (47) for relieving the burden of taxation in sparsely settled forest districts may generally prove equally adaptable to range-land areas.

RESEARCH AND EXTENSION

The scientific background on which future range management must be based is new and limited. Extension aid for the range problem is restricted to a few localities where county agents and extension livestock specialists give it scant and sporadic attention, incidentally to the assistance rendered arable-land agriculture. Stockmen are entitled to direct extension aid on their range-management problems. The program on research and extension, a public responsibility, is outlined in a succeeding part of this report.

IMPROVING RURAL SOCIAL AND ECONOMIC CONDITIONS

The fundamental purpose of any potential program should be the permanent betterment of rural social conditions by improving the basic economics of private ownership of western range lands. Considerable of the difficulty would be solved if the financial income of the individual producer could be assured at a point where he would be able to make his home a better place of abode, typical of a higher plane of living than most owners now can possibly even anticipate. Efficient and comprehensive development of such an objective may be the foundation stone of a new and more enduring livestock ranching industry. To adequately consummate such a program private owners and the public both have important responsibilities.

The private owner operating on submarginal lands or on a unit that is socially and economically unsound should recognize either the necessity for adjustments which will overcome unprofitable operations or the abandonment of the endeavor to make a satisfactory home under such adverse conditions. Those outfits remaining in private ownership should recognize that management principles which will rehabilitate depleted ranges and assure most effective use

of the forage and reasonable returns from the livestock, need to be instituted. Inflationary land values must be written off, the range resources maintained, and greater use made of cooperative effort in guaranteeing loans in order to stabilize land values and secure sound credit.

The public should make provision for gradually acquiring approximately 125 million acres of submarginal lands, especially those with high public values, in order to assure such management as will safeguard public interests. It should also facilitate the development of sound social and economic home units. This is especially true for ranches dependent upon public range lands for grazing as part of their economic security, or where the owner can be employed on work aimed at the betterment of public lands. Already the Federal Farm Credit Administration is furnishing credit facilities which are stabilizing range-land enterprises. Further extension of such credit facilities would be desirable. Adequate studies of taxation affecting range lands and ranch properties used in connection with range lands are needed in an effort to develop more equitable taxation.

The stockmen and livestock associations would perform a real service for rural life by fostering public interest and action in improving rural social conditions. No great material and permanent advance can be consummated in rural living, however, unless appreciation and pride in the land resource are accepted as the foundation stones of rural civilization. Economic distress, traceable to land abuse, cannot be ameliorated or removed until stewardship of the land becomes the tenet of rural thinking.

The quest for new lands to conquer must be replaced by the desire to improve and maintain the lands already occupied. Any conscious community effort to bring the ranch and the range into full productive capacity will be accompanied by innumerable social dividends and benefits.



